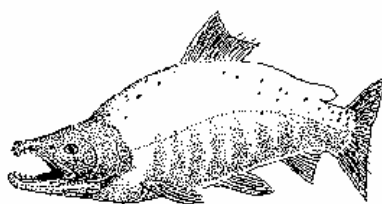


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# ***PRIORITY INFORMATION NEEDS***

## ***FEDERAL SUBSISTENCE FISHERIES***



### **2007 Fisheries Resource Monitoring Program**

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The Office of Subsistence Management (OSM) invites the submission of new and continuing proposals for fisheries investigation studies to be initiated under the 2007 Fisheries Resource Monitoring Program. In 2007, approximately \$4 million will be available to fund monitoring and research projects needed to sustain subsistence fisheries for rural Alaskans on Federal lands.

Although all proposals addressing subsistence fisheries on Federal lands will be considered, we are targeting the 2007 Request for Proposals towards high priority information needs developed either by strategic planning efforts or by expert opinion. Strategic plans have been completed for Southcentral and the Bristol Bay – Chignik Regions, providing prioritized information needs for each major subsistence fishery. For these two regions, a workgroup of regional fisheries managers, researchers, and Regional Advisory Council (Council) members developed a strategic plan that includes: (1) a framework of prioritized subsistence fishery units; (2) a framework of prioritized goals, objectives, and information needs for each subsistence fishery unit; (3) an inventory of projects, past and present, that provide relevant information for each information need; and (4) a gap analysis that identifies which information needs to consider for proposals. Draft strategic plans were publicly reviewed through their respective Councils. The Southcentral Strategic Plan was completed in March 2005 and the Bristol Bay – Chignik Plan was completed in October 2005. Strategic planning efforts have been initiated for the Kodiak – Aleutians and Southeast Alaska Regions in 2005, and all regions should have plans completed by 2008.

For the remaining regions where strategic plans are currently not developed, we developed priority information needs from the expert opinions of the Councils, Technical Review Committee, Federal and State managers and the Fisheries Information Services staff. These high priority information needs are summarized by six geographic regions, plus an inter-regional category. Investigators preparing proposals for the 2007 Fisheries Resource Monitoring Program should use this document to guide proposal development. While Monitoring Program project selections will not be restricted solely to the priority information needs identified in this document, adequate justification must be provided on why a new information need is appropriate.

### **Northern Region - Priority Information Needs**

Since 2001, the three northern Councils (Seward Peninsula, Northwest Arctic, and North Slope) have identified important issues and information needs for their regions. The Seward Peninsula and Northwest Arctic Councils have identified salmon and char fisheries as being the most important fisheries for their region. Char, whitefish, and Arctic grayling fisheries are of most importance to the North Slope Council. In 2007, the Office of Subsistence Management is requesting proposals for the Northern Region that address the following priority information needs.

- Basic biological monitoring information (distribution, abundance and stock structure) to detect and track changes in the status of fish stocks utilized for subsistence
- Evaluate patterns and trends in subsistence fish harvests in Norton and Kotzebue Sounds; factors to consider include, but are not limited to, demographic, economic, regulatory and cultural issues

- Baseline harvest assessment and monitoring of subsistence fisheries throughout the North Slope Region

### **Yukon Region - Priority Information Needs**

Prioritized information needs for the Yukon Region have been identified by the three Yukon River Regional Advisory Councils (Yukon-Kuskokwim Delta, Western Interior, and Eastern Interior) with input from subsistence users, the public, Alaska Native organizations, U.S. Fish and Wildlife Service, Alaska Department of Fish and Game, and partner agencies and organizations. In 2007, we will initiate a strategic planning effort for the Yukon Region that builds upon existing planning efforts (e.g., U.S./Canada Joint Technical Committee, AYK Sustainable Salmon Initiative). For 2007, the Office of Subsistence Management is requesting proposals for the Yukon River Region that address the following priority information needs.

- Maintain reliable estimates of Chinook and chum salmon escapement over time
- Estimate or improve current assessment of mainstem Chinook salmon abundance
- Evaluate patterns and trends in subsistence fish harvests; factors to consider include, but are not limited to, demographic, economic, regulatory and cultural issues
- Evaluate effects of fishing practices (mesh size, windowed openings) on long-term sustainability of Chinook salmon

### **Kuskokwim Region - Priority Information Needs**

Since 2001, the Yukon-Kuskokwim Delta and Western Interior Councils, with guidance provided by the Kuskokwim Fisheries Resource Coalition, identified a number of broad categories of issues and information needs for the Kuskokwim Region. These include collection and analysis of traditional ecological knowledge; harvest monitoring; salmon assessment and escapement; non-salmon fish species assessment; and marine/coastal salmon ecology and contaminants. In 2007, we are requesting proposals for the Kuskokwim Region that address the following priority information needs.

- Evaluate patterns and trends in subsistence fish harvests; factors to consider include, (but are not limited to), demographic, economic, regulatory and cultural issues
- Estimate subsistence salmon harvests
- Develop reliable estimates of abundance, run timing, stock structure, productivity, and carrying capacity of salmon stocks
- Evaluate effects of fishing practices (mesh size, windowed openings) on long-term sustainability of Chinook salmon

### **Southwest Region - Priority Information Needs**

Strategic planning began for the Southwest Region in 2004, and was completed for the Bristol Bay and Chignik areas (Bristol Bay-Chignik) in October 2005. Strategic planning has been initiated for the Kodiak, Alaska Peninsula, and Aleutian Islands areas (Kodiak-Aleutians), and is scheduled for completion by October 2006.

## ***Bristol Bay-Chignik***

Priority information needs for Bristol Bay-Chignik are based on the strategic plan, which can be viewed on or downloaded from the Office of Subsistence Management's website:

<http://alaska.fws.gov/asm/index.cfm>

Three subsistence fisheries units were identified and ranked in importance as follows:

1. Bristol Bay Salmon
2. Chignik Salmon
3. Bristol Bay-Chignik Non-Salmon

For each of the three fisheries units, the workgroup identified highly and moderately important fish populations, developed information needs, and ranked these information needs according to their perceived importance to Federal subsistence fisheries management. The knowledge for each information need is based on review of existing information, which is reevaluated annually by the Office of Subsistence Management with assistance as needed from workgroup members.

For 2007, study proposal solicitation is focused on the top half of each list, although proposals addressing lower ranking information needs will also be considered. The following is a list of these 24 top information needs: 9 within each salmon fishery unit and 6 within the non-salmon fishery unit. The three fishery units are listed in order of importance, and the information needs within each fishery unit are also listed in order of importance. A complete list of fish populations and information needs for these three fishery units can be found in the strategic plan.

### **I. Bristol Bay Salmon**

1. Obtain reliable estimates of spawning escapement over time for Togiak River Chinook and coho salmon runs. [The Monitoring Program will only provide up to 50% of the total cost of such an effort.]
2. Estimate abundance of total run for the Lake Clark sockeye salmon run.
3. Describe the relationship between escapement and production, including smolt production, for Lake Clark sockeye salmon.
4. Identify critical factors that affect population dynamics for Togiak Chinook, coho, and sockeye salmon runs.
5. Determine adult timing and migration patterns by stock, sex, size, and age for Togiak Chinook and coho salmon runs.
6. Develop information sharing between stakeholders and agencies, including evaluating effectiveness of existing efforts.
7. Independently verify subsistence permit data, in particular verification of subsistence harvests taken using rod and reel and subsistence fish retained from commercial catches is needed.
8. Determine quantity of salmon by river/lake system that should be allowed to escape to sustain ecosystem functions. [Proposal must provide a clear link to Federal subsistence fishery management.]
9. Evaluate trends in subsistence harvest data; factors to consider include, but are not limited to, demographic, economic, regulatory, and cultural issues.

## II. Chignik Salmon

1. Obtain reliable estimates of spawning escapement over time for the Clark River sockeye salmon run.
2. Describe relationships between escapement and production, including smolt production, for coho salmon in systems draining into Ivanof, Humpback, Anchor, and Ivan bays.
3. Identify critical factors that affect population dynamics of coho salmon in systems draining into Ivanof, Humpback, Anchor, and Ivan bays.
4. Describe socioeconomic and cultural impacts of the Chignik commercial cooperative salmon fishery on subsistence fishing.
5. Evaluate usefulness and effectiveness of current Federal and state regulations on the Chignik sockeye salmon subsistence fishery.
6. Develop information sharing between stakeholders and agencies, including evaluating effectiveness of existing efforts.
7. Independently verify subsistence permit data, in particular verification of subsistence harvests taken using rod and reel and subsistence fish retained from commercial catches is needed.
8. Determine quantity of salmon by river/lake system that should be allowed to escape to sustain ecosystem functions. [Proposal must provide a clear link to federal subsistence fishery management.]
9. Evaluate trends in subsistence harvest data; factors to consider include, but are not limited to, demographic, economic, regulatory, and cultural issues.

## III. Bristol Bay-Chignik Non-Salmon

1. Describe socioeconomic and cultural impacts of other fisheries, including displacement of subsistence activities from traditional sites.
2. Periodically (about five year intervals) estimate harvest and effort by location, gear type, species, and season. [Information is not needed at this time for Kvichak River drainage communities or Togiak, Twin Hills, and Manakotak.]
3. Estimate abundance and composition (age, size, sex, etc.) of Togiak smelt species.
4. Estimate historic harvest levels and identify trends in data; factors to consider include, but are not limited to, demographic, economic, regulatory, and cultural issues.
5. Identify critical factors that influence population dynamics of Bristol Bay rainbow trout, Lake Clark whitefish species, Togiak Dolly Varden, and Togiak smelt species.
6. Describe trends in Togiak smelt species populations.

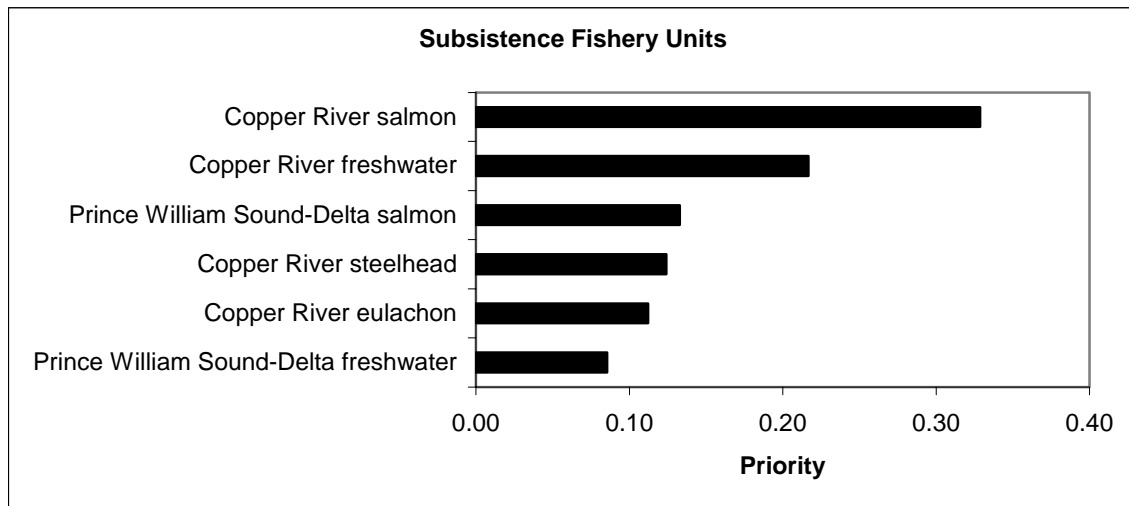
## ***Kodiak-Aleutians***

Priority information needs for Kodiak-Aleutians have been based on the information needs list developed through the Regional Advisory Council. For 2007, we request proposals focused on the following information needs, although proposals addressing other information needs will also be considered. Information topics and needs are not listed in order of importance, since ranking has not been completed.

- *Salmon Stock Assessment and Monitoring*
  - Afognak Lake and Afognak Island, sockeye salmon
  - Buskin River and Kodiak Island, sockeye salmon
  - McLees Lake and Unalaska Island, sockeye salmon
  - Mortensens Creek and Cold Bay, sockeye and coho Salmon
- *Subsistence Uses and Practices*
  - Document patterns and trends in subsistence harvests. Factors to consider include, but are not limited to, demographic, economic, regulatory, and cultural issues.
  - Evaluate validity and reliability of subsistence salmon harvest data
  - Describe socioeconomic, demographic, and cultural impacts of other fisheries in Kodiak, including displacement of traditional subsistence activities from traditional sites.
- *Concerns for Small Stocks in Mixed Stock Salmon Fisheries*
  - Residents are concerned that Olga Bay mixed stock commercial harvests of Dog Salmon Creek (Fraser Lake) and Upper Station (Olga Creek and South Olga Lakes) sockeye salmon may be affecting smaller socks used for subsistence.

### **Southcentral Region - Priority Information Needs**

A Strategic Plan for the Southcentral Region was completed in 2005. Six subsistence fishery units were identified for the Southcentral Region and were prioritized as follows:

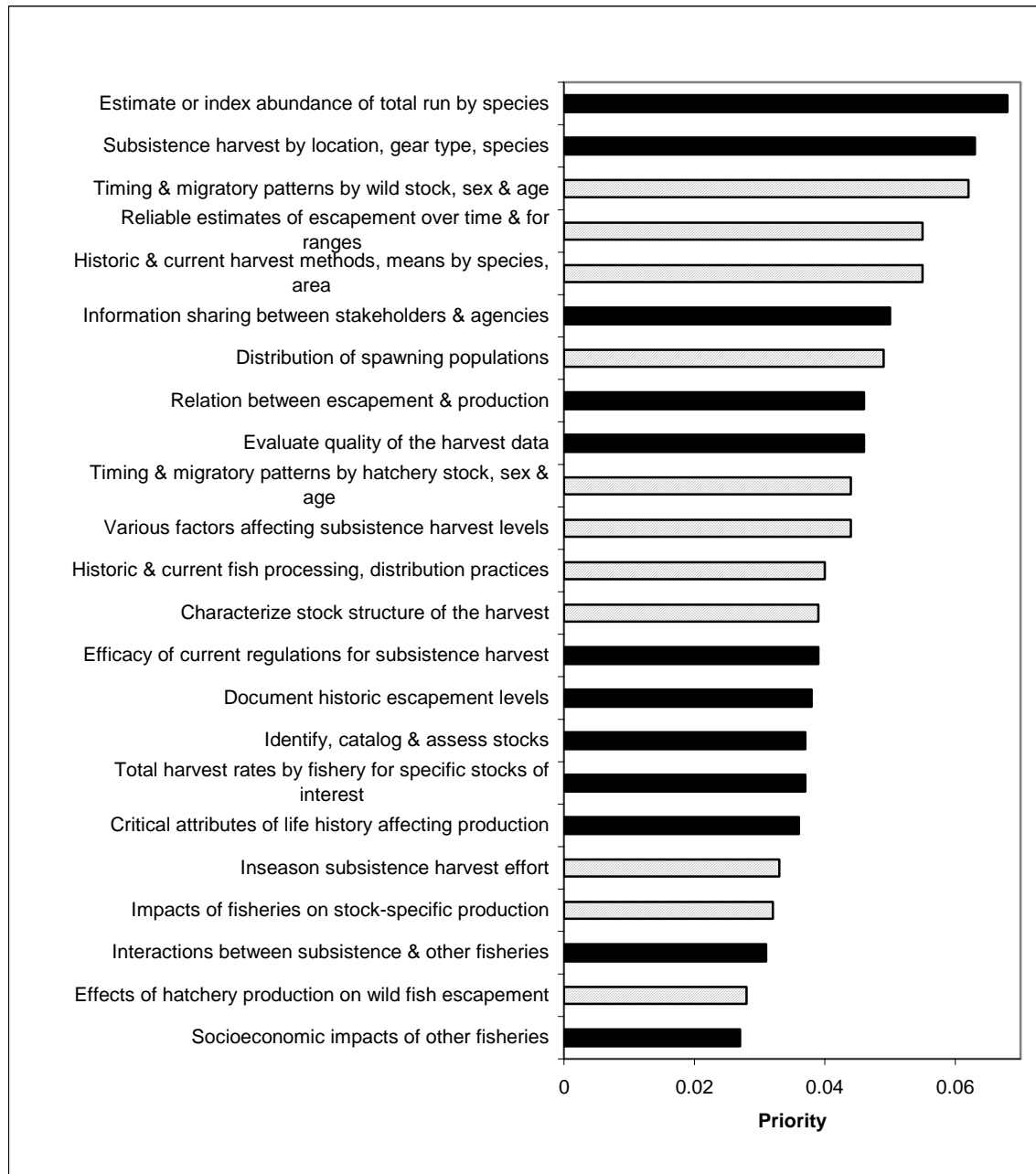


For the 2007 Monitoring Program, only proposals that address Copper River salmon or Copper River freshwater species are recommended for consideration.

#### ***Copper River Salmon:***

Only proposals that address sockeye or Chinook salmon will be considered. A total of 23 information needs were identified and prioritized. The following shows these in rank order,

with solid bars indicating the 12 information needs that will be considered for proposals in 2007 and hatched bars indicating the 11 that will not be considered for proposals in 2007:



***Copper River Freshwater Species:***

Only proposals that address burbot and lake trout populations in McCarthy, Nabesna Road, Tanada, and Copper lakes will be considered. Priority information needs include:

- Estimate or index total abundance and composition by species
- Evaluate spawning abundance needed to sustain subsistence fisheries
- Document historic distribution and abundance levels

- Identify environmental, demographic, regulatory, and socioeconomic factors affecting subsistence harvest levels
- Evaluate usefulness and effectiveness of current regulations for subsistence harvests

### **Southeast Region - Priority Information Needs**

The Southeast Regional Advisory Council identified general issues of interest for the Monitoring Program in Southeast to be as follows:

1. Traditional ecological knowledge
2. Harvest monitoring
3. Salmon assessment, particularly for sockeye and coho salmon
4. Assessment of fish species (other than salmon) important to subsistence use; particularly Prince of Wales steelhead and Behm Canal eulachon

For 2007, priority information needs include:

- Escapement assessment for sockeye salmon stocks that sustain subsistence fisheries. Of particular concern are sockeye salmon stocks for which subsistence exploitation is high or unknown; management or regulatory action is under consideration; or some or the entire subsistence fishery occurs on Federal public lands. Hatchery Creek on Prince of Wales Island is of particular concern. Sockeye salmon stocks that meet most of these criteria include Chatham Strait stocks such as Kanalku, Sitkoh, Falls, and Gut Bay; Klawock, Hetta, Klag Bay, and Karta lakes.
- Validity and reliability of subsistence harvest data for Prince of Wales Island steelhead
- Abundance and composition of Unuk River eulachon
- Local knowledge of sockeye salmon stream locations, abundance and changes over time
- Evaluate patterns and trends in subsistence salmon and steelhead harvests

### **Inter-Regional Priority Information Needs**

The Inter-regional category is comprised of projects that include two or more regions. In 2007, the Office of Subsistence Management is requesting proposals for the Inter-regional category that address the following priority information need:

- Quantification and assessment of subsistence harvests across regions